

Claims

1. A storage device for plate-shaped data carriers, said storage device being box-shaped and comprising a first and a second cover part, pivotally connected, wherein fixing means are provided for fixing the data carrier within the storage  
5 device, the storage device being injection molded from plastic, in particular polypropylene or the like, and being closable, and protective means being integrally injection molded in the storage device during manufacture.
2. A storage device according to claim 1, wherein the  
10 protective means at least comprise a product-specific printing provided during manufacture in the mold and included in or on the storage device.
3. A storage device according to claim 2, wherein the  
15 printing is provided at least on the outer side of the storage device and extends over at least a cover, a back and the intermediate pivot.
4. A storage device according to any one of claims 1-3, wherein the protective means at least comprise magnetic or electronically readable means, which are preferably  
20 substantially entirely surrounded by the material of the storage device.
5. A storage device according to claim 4, wherein the protective means comprises a magnetic strip which can cooperate with detection means therefor.
- 25 6. A storage device according to any one of the preceding claims, wherein the protective means comprise sealing means, for which purpose at least one cover part is provided with a number of lip-shaped sealing elements, while when the storage device is closed, the or each sealing element is movable by  
30 at least a portion of its surface against the outer side of the other cover part and can be fixedly connected thereto, preferably through at least partial fusion, the arrangement being such that the data carrier disposed in the storage

device cannot be removed therefrom without breaking the sealing means.

7. A storage device according to any one of the preceding claims, wherein the protective means comprise projections  
5 provided on at least a cover part and corresponding openings in the opposite cover part, such that when the storage device is closed, the projections project through the openings outside the outer side of the relevant cover part comprising the openings, the projecting projection parts that extend  
10 outside the cover part being deformable in such manner, for instance through heat, that the projections cannot be withdrawn from the openings without removal of at least a part of the projecting parts and/or damaging the projections and/or cover parts otherwise.
- 15 8. A storage device according to claim 7, wherein the projections are arranged on the first cover part and the openings are arranged in the second cover part.
9. A storage device according to claim 7 or 8, wherein each cover part is provided with a raised longitudinal edge, said  
20 longitudinal edges, when the storage device is closed, abutting against each other, the projections and openings being provided in or at least adjacent the area of the longitudinal edges.
10. A storage device according to any one of the preceding  
25 claims, wherein the protective means comprise at least one strip-shaped or band-shaped element which, after closing of the storage device, is arranged so as to overlap at least a part of a seam between the first and the second cover part, and which is secured against the two cover parts.
- 30 11. A storage device according to claim 10, wherein the or each strip-shaped or band-shaped element is of tearable design and preferably comprises a weakening that defines a tearing line approximately at the level of said seam.
12. A storage device according to any one of the preceding  
35 claims, wherein the protective means comprise at least one

holographic or comparable image which is integrally injection molded in or on, or at least with the storage device.

13. A storage device according to any one of the preceding claims, wherein the protective means comprise at least one  
5 bar-code.

14. A storage device according to any one of the preceding claims, wherein the protective means comprise sealing means provided on or against the fixing means, the arrangement being such that a data carrier placed in the storage device  
10 cannot be removed therefrom without breaking the sealing means.

15. A storage device according to any one of the preceding claims, wherein on the side remote from a back part and the pivots, the two cover parts are provided with cooperating  
15 closing means.

16. A storage device according to any one of the preceding claims, wherein the storage device is manufactured through injection molding from a plastic having a melt higher than 20, preferably higher than 30, in particular higher than 40  
20 and even more in particular about 50.

17. A storage device according to any one of the preceding claims, wherein the storage device is injection molded in one piece, preferably at least substantially from clear polypropylene or a like plastic suitable for forming  
25 integrally injection molded pivots.

18. A storage device according to any one of the preceding claims, wherein the storage device is manufactured from clear, transparent plastic and wherein a preferably at least partially transparent printing is provided, said printing  
30 being at least partially visible from two opposite sides of a printed part of the device.

19. A method for manufacturing a storage device according to any one of the preceding claims, wherein protective means are placed in a mold and wherein subsequently at least a portion  
35 of the storage device is formed against or around the protective means in the mold, preferably through injection

molding, such that the protective means cannot be removed from the relevant part without damage.

20. A method according to claim 19, wherein the storage device is injection molded in one piece.

5 21. A method according to claim 19 or 20, wherein a printing is provided in the mold, whereupon plastic in the mold is provided against the printing or a carrier carrying the printing, such that the printing will form an integral part of the storage device or a part thereof to be formed in the  
10 mold.

22. A method according to claim 21, wherein the printing is introduced into the mold on a carrier.

23. A method according to claim 22, wherein the carrier is turned towards the adjacent wall of the mold and the plastic  
15 is provided against the opposite side.

24. A method according to claim 22 or 23, wherein the carrier is slightly stretched before or during placement in the mold, such that it is pulled taut.

25. A method according to any one of claims 22-24, wherein  
20 such a carrier is applied that under the influence of at least the temperature of the plastic provided thereagainst, it burns or sublimes, while the printing is incorporated on or into the plastic.

26. A method according to claims 22-24, wherein the carrier  
25 fuses with the plastic.

27. A method according to any one of claims 22-26, wherein the carrier with printing is supplied as a strip, in particular from a roll, and is cut directly before or during placement.

30 28. A method according to any one of claims 21-27, wherein the printing is designed as transfer.

29. A method according to claim 21, wherein the printing is provided in the mold through impressing or printing on a wall part of the mold or a carrier provided thereon.

35 30. A method according to any one of claims 21-29, wherein a holographic printing is provided.

31. A method according to any one of claims 21-30, wherein a bar-code or the like is provided.

32. A method according to any one of claims 21-31, wherein a carrier is provided in the mold, having a printing on two  
5 sides, the plastic being provided against the carrier and undetachably connected thereto.

33. A method according to claim 32, wherein the carrier is at least partially transparent.

34. A method according to any one of claims 19-33, wherein  
10 the protective means comprise magnetic and/or electronic means which are positioned on a carrier in the mold, whereupon plastic is squirted around the magnetic and/or electronic means, such that the carrier is enclosed or incorporated therein or disappears therein, for instance  
15 through burning or sublimation.

35. A method for manufacturing a storage device for products, in particular for plate-shaped data carriers, said storage device comprising a first and a second cover part, said storage device being injection molded from plastic, in  
20 particular polypropylene or the like, whereupon one or more products are included in the storage device and the storage device is closed around the products by moving the first and the second cover part against each other, whereupon at least one strip-shaped or band-shaped element is secured against  
25 the first and the second cover part, such that the cover parts are interconnected and products cannot be approached other than after breaking the protective means formed by the at least one strip-shaped or band-shaped element.

36. A method according to claim 35, wherein the first cover  
30 part is pivotally connected to the second cover part by pivot means, at least one strip-shaped or band-shaped element being provided at a distance from the pivot means.

37. A method according to claim 35 or 36, wherein the or  
each strip-shaped or band-shaped element is connected to the  
35 cover parts through heat treatment.

38. A method according to any one of claims 35-37, wherein the or each strip-shaped or band-shaped element is cut from a continuous strip of plastic directly prior to or during attachment against the storage device.

- 5 39. An apparatus for manufacturing a storage device according to any one of claims 1-18 or for using a method according to any one of claims 19-34, wherein the apparatus is arranged for injection molding, means being provided for fitting protective means in the mold, in particular a  
10 printing.